

Appl. No. 10/079,114

Amendment Dated April 29, 2004

Reply to Office Action of December 29, 2003

In the Claims:

Claim 1 (Currently Amended). An electronic component,
comprising:

a semiconductor chip including a semiconductor material, said
semiconductor chip having an active upper side with a central
portion and edge portions, a passive rear side, and a sawn
edge;

said sawn edge being formed of said semiconductor material and
surrounding said semiconductor chip, said sawn edge having
profile-sawn contours extending into said edge portion of said
active upper side; and

a plastics composition forming a plastic edge, said plastic
edge surrounding said sawn edge and being in a form-locking
engagement with said profile-sawn contours;

said central portion of said active upper side being uncovered
by said plastics composition.

Claim 2 (Previously Presented). An electronic component,
comprising:

a semiconductor chip including a semiconductor material, said semiconductor chip having an active upper side, a passive rear side, and a sawn edge;

said sawn edge being formed of said semiconductor material and surrounding said semiconductor chip, said sawn edge having profile-sawn contours; and

a plastics composition forming a plastic edge, said plastic edge surrounding said sawn edge and being in a form-locking engagement with said profile-sawn contours;

said plastic edge having a rectangular cross section which is extended, toward said active upper side of said semiconductor chip, by a triangular area tapering to a point.

Claim 3 (Previously Presented). An electronic component, comprising:

a semiconductor chip including a semiconductor material, said semiconductor chip having an active upper side, a passive rear side, and a sawn edge;

said sawn edge being formed of said semiconductor material and surrounding said semiconductor chip, said sawn edge having profile-sawn contours; and

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a plastics composition forming a plastic edge, said plastic edge surrounding said sawn edge and being in a form-locking engagement with said profile-sawn contours.

said plastic edge having a rectangular cross section with an additional rectangular area widening said rectangular cross section toward said active upper side of said semiconductor chip.

Claim 4 (Original). The electronic component according to claim 1, wherein said plastic edge has a cross section formed with a notch at said active upper side.

Claim 5 (Previously Presented). An electronic component, comprising:

a semiconductor chip including a semiconductor material, said semiconductor chip having an active upper side, a passive rear side, and a sawn edge;

said sawn edge being formed of said semiconductor material and surrounding said semiconductor chip, said sawn edge having profile-sawn contours; and

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a plastics composition forming a plastic edge, said plastic edge surrounding said sawn edge and being in a form-locking engagement with said profile-sawn contours;

said plastic edge having a U-shaped cross section with a relatively shorter leg and a relatively longer leg; and

said active upper side of said semiconductor chip having an edge region with a groove formed therein, said relatively shorter leg engaging in said groove, and said relatively longer leg forming an outer edge of said plastic edge.

Claim 6 (Original). The electronic component according to claim 1, including an adhesion-promoting layer provided between said sawn edge and said plastics composition.

Claim 7 (Original). The electronic component according to claim 6, wherein said adhesion-promoting layer includes at least one element selected from the group consisting of a zinc oxide and a chromium oxide.

Claim 8 (Original). The electronic component according to claim 6, wherein said adhesion-promoting layer has a dendritic structure.

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Claim 9 (Original). The electronic component according to claim 1, wherein said active upper side of said semiconductor chip includes an integrated circuit.

Claim 10 (Original). The electronic component according to claim 1, wherein said active upper side of said semiconductor chip includes a contact sensor.

Claim 11 (Original). The electronic component according to claim 1, wherein said active upper side of said semiconductor chip has an edge region having a bonding channel formed therein with contact areas provided in said bonding channel.

Claim 12 (Original). The electronic component according to claim 1, wherein said active upper side of said semiconductor chip has a central bonding channel formed therein with contact areas provided in said central bonding channel.

Claim 13 (Original). The electronic component according to claim 1, including:

a wiring film disposed on said active upper side, said wiring film having conductor tracks and external contacts; and said semiconductor chip having contact areas connected, via said conductor tracks, to said external contacts.

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Claim 14 (Previously Presented). An electronic component,
comprising:

a semiconductor chip including a semiconductor material, said
semiconductor chip having an active upper side, a passive rear
side, and a sawn edge;

said sawn edge being formed of said semiconductor material and
surrounding said semiconductor chip, said sawn edge having
profile-sawn contours; and

a plastics composition forming a plastic edge, said plastic
edge surrounding said sawn edge and being in a form-locking
engagement with said profile-sawn contours;

said plastic edge having a rectangular cross section which is
extended, toward said passive rear side of said semiconductor
chip, by a triangular area tapering to a point.

Claim 15 (Previously Presented). An electronic component,
comprising:

a semiconductor chip including a semiconductor material, said
semiconductor chip having an active upper side, a passive rear
side, and a sawn edge;

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said sawn edge being formed of said semiconductor material and surrounding said semiconductor chip, said sawn edge having profile-sawn contours; and

a plastics composition forming a plastic edge, said plastic edge surrounding said sawn edge and being in a form-locking engagement with said profile-sawn contours;

said plastic edge having a rectangular cross section with an additional rectangular area widening said rectangular cross section toward said passive rear side of said semiconductor chip.

Claim 16 (Original). The electronic component according to claim 1, wherein said plastic edge has a cross section formed with a notch at said passive rear side.

Claim 17 (Previously Presented). An electronic component, comprising:

a semiconductor chip including a semiconductor material, said semiconductor chip having an active upper side, a passive rear side, and a sawn edge;

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said sawn edge being formed of said semiconductor material and surrounding said semiconductor chip, said sawn edge having profile-sawn contours; and

a plastics composition forming a plastic edge, said plastic edge surrounding said sawn edge and being in a form-locking engagement with said profile-sawn contours;

said plastic edge having a U-shaped cross section with a relatively shorter leg and a relatively longer leg; and

said passive rear side of said semiconductor chip having an edge region with a groove formed therein, said relatively shorter leg engaging in said groove, and said relatively longer leg forming an outer edge of said plastic edge.

Claims 18-25 (Canceled).

Claim 26 (Previously Presented). The electronic component according to claim 1, wherein:

said active upper side has an edge portion;

said sawn edge is formed of said semiconductor material and surrounds said semiconductor chip; and

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said sawn edge has profile-sawn contours extending into said
edge portion of said active upper side.